

### Claim Amendments

Claim 1 has been amended to more clearly define the invention. The amendments to claim 1 have a basis at page 16 of the specification. Claim 1 reads on the elected pyrene specie.

New claim 46 includes the limitations of amended claim 1 and also recites the pyrene elected specie. The undersigned thanks the Examiner for suggesting this amendment in the telephone conference. New claims 47 and 48 correspond to original claims 19 and 23 respectively.

New claim 49 includes the limitations of amended claim 1 and original claim 7. New claims 50, 51 and 52 correspond to original claims 19, 23 and 28 respectively. New claim 49 reads on the elected pyrene specie because of the recited number of carbon atoms in the polycyclic aromatic hydrocarbon. In addition, new claim 49 has a basis in Example 1 and Figure 6 of the application.

Claims 29-33, 43 and 45 have been cancelled as they are directed to a non-elected invention. The Applicant reserves the right to file divisional application(s) directed to the subject matter of these claims.

### Supplemental Information Disclosure Statement

A Supplemental Information Disclosure Statement has been provided for Examiner consideration, along with a fee sheet authorizing charge of the \$180.00 fee to Deposit Account 17-0055.

### Rejections under 35 USC §112

Claims 1-28, 34-42 and 44 were rejected under 35 USC §112, first paragraph as the Office Action questioned whether pyrene is formed in a liquid phase in a flame. In

particular, the Office Action cited an article entitled "Synthesis of carbon-encapsulated nanowires using polycyclic aromatic hydrocarbon precursors" (Chemical Physics Letters, 258, p. 547-553) as indicating that claim 1 does not form the elected pyrene specie (now recited in new claim 46).

First, page 26, lines 6-12 of the specification and Figure 6 indicate that hydrocarbons having 15 to 26 carbons and having a molecular weight of 190 to 302 were formed in the experiments of Example 1. Pyrene has a molecular weight of 202 and 16 carbons. Thus, Example 1 of the specification indicates that pyrene is formed in the present invention.

Second, the Chemical Physics Letters article describes the formation of nanotubes using polycyclic aromatic hydrocarbon precursors (such as pyrene) in a hydrogen or helium arc. Nothing in the article discusses the formation of pyrene in a flame. Furthermore, nothing in the article suggests that pyrene cannot be collected as a condensed phase in a flame as recited in independent claims 1, 46 and 49 and described in Example 1 of the specification.

Thus, it is respectfully requested that the rejection under 35 USC §112 be withdrawn.

#### Prior Art of Record

None of the prior art of record teaches or suggests combusting at least one carbon-containing material in a flame and collecting at least a portion of a condensed phase comprising a polycyclic aromatic hydrocarbon liquid phase in the flame. Thus, it is believed that independent claims 1, 46 and 49 (and the claims that depend thereon) are in condition for allowance.

Change of Correspondence Address & Associate Power of Attorney

A Change of Correspondence Address and an Associate Power of Attorney are also enclosed.

Conclusion

Accordingly, it is believed that the entire application has been placed in condition for allowance. Favorable reconsideration is respectfully requested. Having paid for 45 claims and 3 independent claims with the original application, no additional fees are believed to be needed for the new claims. However, if additional fees are needed, please charge them to Deposit Account 17-0055.

Respectfully submitted,

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By: \_\_\_\_\_



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Version with markings to show changes made

-- 1. (Twice Amended) A method for producing a polycyclic aromatic hydrocarbon comprising:

- a. combusting [condensing at least one] a carbon-containing material in a flame [to form a condensed phase comprising a liquid phase]; and
- b. collecting at least a portion of [the] a condensed phase comprising a liquid phase [from] in the flame;

wherein the condensed phase comprises at least one polycyclic aromatic hydrocarbon. --

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